What is claimed is:

1. A network storage apparatus for connecting a host computer with at least one storage device, comprising:

a passive backplane having a plurality of data buses including first and second data buses;

at least first and second channel interface modules, connected to said passive backplane and adapted to be connected to the host computer and the at least one storage device, that are operational to send and receive storage data to and from the host computer and the at least one storage device and that are operational to selectively transfer the storage data to one or more of said plurality of data buses; and

at least first and second controller memory modules, connected to said passive backplane, that communicate with said channel interface modules via said passive backplane, and that store and process the storage data transferred to and from said channel interface modules.

2. The apparatus of Claim 1, wherein:

at least said first channel interface module includes a communication path portion and a channel interface portion, wherein said channel interface portion is operable to transfer the storage data between the host computer and/or the at least one storage device and said communication path portion, and said communication path portion is operational to selectively transfer the storage data between said channel interface portion and said passive backplane.

3. The apparatus of Claim 1, wherein:

at least said first controller memory module includes a bus interface portion that connects to said passive backplane, a memory for temporary storage of said storage data, and a processing portion that organizes and arranges said storage data.

4. The apparatus of Claim 3, wherein said bus interface portion includes:

at least one backplane interface that connects to said passive backplane;

a memory interface that connects to said memory;

a processing interface that connects to said processing portion;

a bridge core that contains control logic operable to connect said processing interface, memory interface and backplane interface; and

at least one of an exclusive OR (XOR) engine that performs XOR functions on data blocks, and a direct memory access (DMA) engine that provides DMA access to said passive backplane.

5. The network storage apparatus of Claim 1, wherein said passive backplane further includes:

third and fourth data buses.

6. The apparatus of Claim 1, wherein each of said first and second data buses is part of a group of backplane buses and said group includes peripheral component interconnect (PCIX) buses.

7. The apparatus of Claim 2, wherein:

said passive backplane further includes a third data bus and a fourth data bus;

said first channel interface module includes a first bus port and a second bus port, and said second channel interface module includes a third bus port and a fourth bus port, said first, second, third and fourth bus ports being operable to connect said communication path portion to said passive backplane; and

said first controller memory module includes a first bus interface and a second bus interface, and said second controller memory module includes a third bus interface and a fourth bus interface, said first, second, third and fourth bus interfaces being operable to connect said controller memory module to said first, second, third and fourth data buses of said passive backplane.

8. The apparatus of Claim 7, wherein

said first bus port is connected to said first data bus and said second bus port is connected to said third data bus;

said third bus port is connected to said second data bus and said fourth bus port is connected to said fourth data bus;

said first bus interface is connected to said first data bus and said second bus interface is connected to said second data bus; and

said third bus interface is connected to said third data bus and said fourth bus interface is connected to said fourth data bus.

9. The apparatus of Claim 8, wherein:

said communication path portion of said first channel interface module has a first shared path, a first switched path and a second switched path; and

said communication path portion of said second channel interface module has a second shared path, a third switched path and a fourth switched path and in which:

said first shared path is connected to said first bus port and said second bus port;

said first switched path is connected to said first bus port and said channel interface portion;

said second switched path is connected to said second bus port and said channel interface portion;

said second shared path is connected to said third bus port and said fourth bus port;

said third switched path is connected to said third bus port and said channel interface portion; and

said fourth switched path is connected to said fourth bus port and said channel interface portion; and wherein

said first, second, third and fourth switched paths are operable to enable and disable communications involving said channel interface portion.

10. A method for transferring data between a host computer and one or more storage devices, comprising:

transferring firstly data from the host computer to a channel interface module using a first channel medium;

transferring secondly said data from said channel interface module to a first controller memory module using a passive backplane;

processing said data at said controller memory module to define storage data;

transferring thirdly said storage data to said channel interface module via said passive backplane;

transferring fourthly said storage data to the at least one storage device via a second channel medium; and

mirroring said storage data between said first controller memory module and a second controller memory module substantially independently of said first channel medium and said second channel medium.

11. The method of Claim 10, wherein:

said transferring secondly step includes employing a first bus of said passive backplane to transfer said data to said controller memory module.

12. The method of Claim 10, wherein:

said transferring thirdly step includes employing a second bus of said passive backplane to transfer said storage data to said channel interface module.

13. The method of Claim 10, wherein:

said mirroring step includes not using said first channel medium and not using said second channel medium.

14. A method of Claim 10, wherein:

said mirroring step includes limiting said first channel medium and said second channel medium to carry at least less than 50% of said storage data.

15. A network storage apparatus for connecting a host computer with at least one storage device, comprising:

at least first and second channel interface modules, each adapted to be connected to a host channel and a disk channel, that are operational to send and receive data over the host channel and disk channel, the host channel being connected to the host computer and the disk channel being connected to the at least one storage device;

at least first and second controller memory modules that communicate with said first and second channel interface modules and process data from the host computer to provide storage data for storage on the at least one storage device and process data from the at least one storage device to provide retrieved data for delivery to the host computer; and

a passive backplane connected to each of said channel interface modules and each of said controller memory modules that supports communication between said channel interface modules and said controller memory modules, wherein when data is being carried by the host channel and/or the disk channel and at the same time data is being mirrored between said

first controller memory module and said second controller memory module, neither the host channel nor the disk channel carries more than fifty per cent of said data being mirrored.

16. The apparatus of Claim 15, wherein:

each of said first and second channel interface module includes a communication path portion and a channel interface portion, wherein said channel interface portion is operable to transfer said storage data between said host channel and/or said disk channel and said communication path portion, and said communication path portion is operational to transfer said storage data between said channel interface portion and said passive backplane.

17. The apparatus of claim 15, wherein:

each of said first and second controller memory modules includes a bus interface portion that connects to said passive backplane, a memory for temporary storage of said storage data, and a processing portion that organizes and arranges said storage data.

18. The apparatus of Claim 17, wherein said bus interface portion includes:

at least one backplane interface that connects to said passive backplane;

a memory interface that connects to said memory;

a processing interface that connects to said processing portion;

a bridge core that contains control logic operable to connect said processing interface, memory interface and backplane interface; and

at least one of an exclusive OR (XOR) engine that performs XOR functions on data blocks, and a direct memory access (DMA) engine that provides DMA access to said passive backplane.

19. The apparatus of Claim 15, wherein:

substantially none of said data being mirrored is carried by the host channel and the disk channel.